

We claim:

1. A connector clip for verifying complete connection between a connector and a pipe to be put thereon and mounted thereto; the connector having a tube connecting portion on one axial side thereof and retainer means on an opposite axial side thereof, and being provided with sealing member in an inner peripheral surface thereof; the pipe being provided with an annular engagement projection and an annular verification projection on an outer peripheral surface thereof, and being inserted into an opening on an axial end of the connector so as to allow an inserting end thereof to be located beyond the sealing member and the annular engagement projection to be snap-engaged with the retainer means; and the annular verification projection being formed so as to be located in or near an opposite axial end of the connector, or on an opposite axial side of an opposite axial end of the connector; comprising:

a clip body on one axial side including one clip portion and an opposite clip portion on one and opposite axial end portions or positions thereof respectively, the clip body being configured to receive a held portion from a large diameter portion on an opposite axial side of the connector to the annular verification projection of the pipe so as to be held by the clip portions from axially opposite ends of the held portion,

a connection verifying portion on an opposite axial side, continued from the clip body, the connection verifying portion being configured by a pair of restraining portions extending from the clip body in an opposite axial direction with a widthwise distance so as to allow a body of the pipe to pass through or move therebetween but not to allow the annular engagement projection and the annular verification projection of the pipe to pass through therebetween, and

a pair of the restraining portions having or being provided with an assistance structure to effectively detect incomplete connection of a connector

and a pipe.

2. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 1 wherein an axial distance between the opposite clip portion of the clip body and an opposite axial end of the connection verifying portion is designed shorter than an axial length  
5 between the annular engagement projection and the annular verification projection of the pipe, and

the assistance structure is constructed such that the axial distance between the opposite clip portion and the opposite axial end of the connection verifying portion is designed equal to or longer than an axial distance  
10 between the inserting end of the pipe and an opposite axial end of the sealing member.

3. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 1 wherein the clip body has an inner receiving portion of U-shape in cross-section.

4. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 1 wherein the connection verifying portion includes a joint portion to join a pair of the restraining portions, and has a receiving recess of U-shape in cross-section to receive an opposite axial  
5 side of the annular verification projection of the pipe.

5. A connector connecting structure for verifying complete connection between a connector and a pipe by way of a connector clip putting thereon and mounting thereto; the connector having a tube connecting portion on one axial side thereof and retainer means on an  
5 opposite axial side thereof, and being provided with sealing member in an inner peripheral surface thereof; the pipe being provided with an annular engagement projection and an annular verification projection on an outer peripheral surface thereof, and being inserted into an opening on an axial end of the connector so as to allow an inserting end thereof to be located

10 beyond the sealing member and the annular engagement projection to be snap-engaged with the retainer means; and the annular verification projection being located in or near an opposite axial end of the connector, or on an opposite axial side of an opposite axial end of the connector;

the connector clip, comprising;

15 a clip body on one axial side including one clip portion and an opposite clip portion on one and opposite axial end portions or positions thereof respectively, the clip body receiving a held portion from a large diameter portion on an opposite axial side of the connector to the annular verification projection of the pipe so as to be held by the clip portions from  
20 axially opposite ends of the held portion,

a connection verifying portion on an opposite axial side, continued from the clip body, the connection verifying portion being configured by a pair of restraining portions extending from the clip body in an opposite axial direction with a widthwise distance so as to allow a body of the pipe to pass  
25 through or move therebetween but not to allow the annular engagement projection and the annular verification projection of the pipe to pass through therebetween, and

an axial distance between the opposite clip portion of the clip body and an opposite axial end of the connection verifying portion being designed  
30 shorter than an axial length between the annular engagement projection and the annular verification projection of the pipe, and being designed equal to or longer than an axial distance between the inserting end of the pipe and an opposite axial end of the sealing member.

6. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 3 wherein the one clip portion of the clip body is defined in an inside surface of a one-side wall portion having a connector fit-on recess of U-shape, and the opposite clip portion of the clip  
5 body is defined in an inside surface of an opposite-side wall portion having a

pipe fit-on recess of U-shape with a width equal to or generally equal to an outer diameter of a body of the pipe,

10 a pair of the restraining portions are formed in a form of a pair of restraining lugs which are provided integrally on end portions of an opening side of the opposite-side wall portion with the pipe fit-on recess therebetween and extend in an opposite axial direction, and reinforcement ribs are provided integrally between the restraining lugs and the opposite-side wall portions respectively,

15 an axial distance between the opposite clip portion and opposite axial ends of the restraining lugs is designed longer than an axial length between the annular engagement projection and the annular verification projection of the pipe, and

20 the assistance structure is constructed such that a distance between a pair of the reinforcement ribs is designed shorter than an outer diameter of the annular verification projection of the pipe.

7. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 6 wherein the reinforcement ribs are formed for entire length of the restraining lugs respectively.

8. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 6 wherein the reinforcement ribs are formed along the pipe fit-on recess respectively, and a distance between a pair of the reinforcement ribs is designed equal to or generally equal to a width of the pipe fit-on recess.

9. The connector clip for verifying complete connection between a connector and a pipe as set forth in claim 6 wherein the one-side wall portion of the clip body is raised in one axial direction so that the connector fit-on recess protrudes in one axial direction.